

Abstract

Universal access to safe and adequate sanitation for everyone remains a global challenge as over 35% of the total global populations have no access to adequate sanitation. This call for action and a paradigm shift from the sanitation conventional approach systems to onsite sanitation approach to ensure complete sanitation value chain and safeguard circular nutrient economy. This study explores small scale farmers' knowledge, attitude, perception and practices on the uptake and utilization of treated human excreta as organic fertilizer. Data was collected from 96 respondents comprising of the farming household heads using both stratified and purposive sampling techniques across the six wards of Imenti South Sub-County using questionnaires. The study showed that education level and religion significantly influence on the level of utilization ($p < 0.05$), while gender, occupation and farming duration had no significance level ($p > 0.05$) on the utilization of treated human excreta. Half (50%) of the respondents agreed that increase in knowledge, positive attitudes and perceptions on treated human excreta improved on their application of treated human excreta as organic fertilizer. However, negative attitudes and health risk perceptions were the main limiting factors to utilization of treated human excreta. The type of sanitation technology used also influenced on the uptake and utilization of treated human excreta where by improved sanitation practices increased usage and application of human excreta as organic fertilizer by 52%. Therefore, there is a need for frequent open dialogues around the benefits and risks of treated human excreta utilization as organic fertilizer to increase farmers' knowledge on it proper application. Further, it is important to understand the nature and direction of attitudinal influence dimensions and characteristics of farmers for mainstreaming circular economy interventions.